

SEQUENCE LISTING

<110> Evotec NeuroSciences GmbH

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<120> DIAGNOSTIC AND THERAPEUTIC USE OF A SULFOTRANSFERASE
FOR NEURODEGENERATIVE DISEASES

<130> 2335.0140000/SRL/KPQ

<150> PCT/EP2004/052353

<151> 2004-09-29

<150> 60/506,775

<151> 2003-09-30

<160> 22

<170> PatentIn Ver. 2.1

<210> 1

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer for the
human SULT4A1 splice variant 1 and splice variant
2 gene

<400> 1

caaagtgggtg gtcaggaggg t

21

<210> 2

<211> 22

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:primer for the
human SULT4A1 splice variant 1 and splice variant
2 gene

<400> 2

ccgtttcaaa tacagcacca ag

22

<210> 3

<211> 18

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:primer for the
human SULT4A1 splice variant 1 gene

<400> 3

ctgaccccgga tgagatcg

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<210> 4

<211> 19

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:primer for the
human SULT4A1 splice variant 1 gene

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<211> 19

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:primer for the
human SULT4A1 splice variant 2 gene

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<210> 6

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<212> DNA

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<223> Description of Artificial Sequence:primer for the
human SULT4A1 splice variant 2 gene

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ttcatacttg agaaaaagca cgt

23

<210> 7

<211> 20

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:primer for the
human cyclophilin B gene

<400> 7

actgaagcac tacgggcctg

20

<210> 8

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:primer for the
human cyclophilin B gene

<400> 8

agccgttggt gtctttgcc

19

<210> 9

<211> 20

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:primer for the
human ribosomal protein S9 gene

<400> 9

ggtcaaattt accctggcca

20

<210> 10

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:primer for the
human ribosomal protein S9 gene

<400> 10

tctcatcaag cgtcagcagt tc

22

<210> 11

<211> 19

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:primer for the
human beta actin gene

<400> 11

tggaacggtg aaggtgaca

19

<210> 12

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:primer for the
human beta actin gene

<400> 12

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19

<210> 13

<211> 20

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:primer for the
human GAPDH gene

<400> 13

cgtcatgggt gtgaaccatg

20

<210> 14

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<212> DNA

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<223> Description of Artificial Sequence:primer for the
human GAPDH gene

<400> 14

gctaagcagt tggtggtgca g

21

<210> 15

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:primer for the
human transferrin receptor TRR gene

<400> 15

gtcgcgtggtc agttcgtgat t

21

<210> 16

<211> 23

<212> DNA

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<223> Description of Artificial Sequence:primer for the
human transferrin receptor TRR gene

<400> 16

agcagttggc tggtgtacct etc

23

<210> 17

<211> 284

<212> PRT

<213> Homo sapiens

<400> 17

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Ser Lys Tyr Phe Glu Phe His Gly Val Arg Leu Pro Pro Phe Cys Arg
20 25 30

Gly Lys Met Glu Glu Ile Ala Asn Phe Pro Val Arg Pro Ser Asp Val
35 40 45

Trp Ile Val Thr Tyr Pro Lys Ser Gly Thr Ser Leu Leu Gln Glu Val
50 55 60

Val Tyr Leu Val Ser Gln Gly Ala Asp Pro Asp Glu Ile Gly Leu Met
65 70 75 80

Asn Ile Asp Glu Gln Leu Pro Val Leu Glu Tyr Pro Gln Pro Gly Leu
85 90 95

Asp Ile Ile Lys Glu Leu Thr Ser Pro Arg Leu Ile Lys Ser His Leu
100 105 110

Pro Tyr Arg Phe Leu Pro Ser Asp Leu His Asn Gly Asp Ser Lys Val
115 120 125

Ile Tyr Met Ala Arg Asn Pro Lys Asp Leu Val Val Ser Tyr Tyr Gln
130 135 140

Phe His Arg Ser Leu Arg Thr Met Ser Tyr Arg Gly Thr Phe Gln Glu
145 150 155 160

Phe Cys Arg Arg Phe Met Asn Asp Lys Leu Gly Tyr Gly Ser Trp Phe
165 170 175

Glu His Val Gln Glu Phe Trp Glu His Arg Met Asp Ser Asn Val Leu
180 185 190

Phe Leu Lys Tyr Glu Asp Met His Arg Asp Leu Val Thr Met Val Glu
 195 200 205

Gln Leu Ala Arg Phe Leu Gly Val Ser Cys Asp Lys Ala Gln Leu Glu
 210 215 220

Ala Leu Thr Glu His Cys His Gln Leu Val Asp Gln Cys Cys Asn Ala
 225 230 235 240

Glu Ala Leu Pro Val Gly Arg Gly Arg Val Gly Leu Trp Lys Asp Ile
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Phe Thr Val Ser Met Asn Glu Lys Phe Asp Leu Val Tyr Lys Gln Lys
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Met Gly Lys Cys Asp Leu Thr Phe Asp Phe Tyr Leu
 275 280

<210> 18

<211> 171

<212> PRT

<213> Homo sapiens

<400> 18

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 20 25 30

Gly Lys Met Glu Glu Ile Ala Asn Phe Pro Val Arg Pro Ser Asp Val
 35 40 45

Trp Ile Val Thr Tyr Pro Lys Ser Val Gly Tyr Gly Ser Trp Phe Glu
 50 55 60

His Val Gln Glu Phe Trp Glu His Arg Met Asp Ser Asn Val Leu Phe

65	70	75	80
Leu Lys Tyr Glu Asp Met His Arg Asp Leu Val Thr Met Val Glu Gln			
85	90	95	
Leu Ala Arg Phe Leu Gly Val Ser Cys Asp Lys Ala Gln Leu Glu Ala			
100	105	110	
Leu Thr Glu His Cys His Gln Leu Val Asp Gln Cys Cys Asn Ala Glu			
115	120	125	
Ala Leu Pro Val Gly Arg Gly Arg Val Gly Leu Trp Lys Asp Ile Phe			
130	135	140	
Thr Val Ser Met Asn Glu Lys Phe Asp Leu Val Tyr Lys Gln Lys Met			
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Gly Lys Cys Asp Leu Thr Phe Asp Phe Tyr Leu			
165	170		

<210> 19

<211> 2419

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:nucleotide
sequence of human SULT4A1 cDNA, splice variant 1

<400> 19

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agatggagga gatcgccaac ttcccgggtgc ggcccagcga cgtgtggatc gtcacctacc 180
ccaagtccgg caccagcttg ctgcaggagg tggctactt ggtgagccag ggcgctgacc 240
ccgatgagat cggcttgatg aacatcgacg agcagctccc ggtcctggag taccacagc 300
cgggcctgga catcatcaag gaactgacct ctccccgcct catcaagagc cacctgccct 360
accgctttct gccctctgac ctccacaatg gagactccaa ggtcatctat atggctcgca 420
accccaagga tctggtggtg tcttattatc agttccaccg ctctctgcgg accatgagct 480

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accgaggcac ctttcaagaa ttctgccgga ggtttatgaa tgataagctg ggctacggct 540
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tcaagtatga agacatgcat cgggacctgg tgacgatggg ggagcagctg gccagattcc 660
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2419

<210> 20

<211> 2080

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:nucleotide

sequence of human SULT4A1 cDNA, splice variant 2

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ccaagtccgt gggctacggc tcctggtttg agcacgtgca ggagttcttg gagcaccgca 240
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gcattcattt attccttgct ggacaaactc tggaagcagc gtgtgaaaca gcgggggaag 660
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 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2080

<210> 21

<211> 32

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:nucleotide
 sequence of human SULT4A1 cDNA fragment

<400> 21

gattgcatct ttaataaaga catgttcccc gc 32

<210> 22

<211> 855

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:coding sequence
 of the human SULT4A1 gene

<400> 22

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gacttttatt tataa 855